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SCIENCE AND PRAYER.

PRESIDENT ANDERSON.

IN our day a class of able men, many of them distinguished scientists, think that the biblical view of prayer is altogether false; that it will do well enough for children and ignorant men and women, but can no longer satisfy the intelligent and the learned. These men represent prayer as futile, because the laws of the material universe are absolutely immutable—nothing can in the least change or modify them; therefore, to pray for rain or for recovery from sickness is as great a folly as it would be to attempt to dam up Niagara with a straw. When the atmospheric conditions are fulfilled, the rain will descend; when the physical and hygienic conditions are suitable, the sick will be restored to health. Yet we must be just to these scientific men. They do not all agree in opinion any more than the theologians do. Some of them are theists: their God is a personal God, who hears prayer. He may, they affirm, in answer to prayer, bestow on men spiritual blessings. If they pray for enlightenment, the spirit illuminates their minds; if for forgiveness of sin, that blessing is bestowed and the assurance of it; but, say they, we cannot rationally pray for physical good, for material blessings, since in the material realm all is governed by laws fixed, unchangeable.

Still others affirm that prayer is a rational exercise, not because the petitioner directly receives in answer to his prayer either spiritual or material good, but on account of the reflex influence of prayer in his own mind and heart. It changes him. It lifts him up into communion with Him in whom is “no variableness, neither shadow of turning.” No real answer to prayer comes down from God to us, but by prayer we are lifted up toward God and transformed into his likeness. That there is this reflex influence in prayer, no candid observer can for a moment doubt; but that this is all that is implied in answer to prayer, we are not yet ready to admit.

Such, then, are the views, not of all, but of many of the scientists of our day. Whatever may be the diversities in their views, there is substantial agreement in this, that the immutability of the laws of nature shows the folly of prayer, especially for material blessings. That such views are at variance with the Scriptures, the dullest can see. Both the biblical view and this of the materialistic scientists cannot be true; they are utterly in discord with each other, absolutely contradictory. Christ says with positiveness and with sweeping generality, "Ask, and it shall be given you"; the scientist says it is folly to ask, as no blessing, since the laws of the material universe are immutable, can be bestowed in direct answer to prayer. It is clear, then, that either Christ and his apostles, or the materialistic scientists, are mistaken.

We wish, "with malice toward none and with charity for all," to call attention to some points in the position of those scientists who have essayed to be not only our scientific, but also our religious teachers, which seem to us to be weak and untenable; and by our tentative criticism to suggest that perchance the soundest science does not yet summon us to abandon the biblical view of prayer; that it is quite possible that he who spake, his enemies being the judges, as never man spake, never dropped a word in reference to prayer which conflicts in any degree with absolute science. The question before us, then, is whether the doctrine of prayer as presented by Christ in the New Testament is at variance with established science.

Let us first briefly define our terms. What is science? It is what we really know in all departments of investigation, whether the subject be the material universe or the acts and states of the soul revealed to us through consciousness. To know scientifically, to be sure, implies accurate observation, analysis, generalization, and correct classification; but all these processes simply help us really to know, and to know is the pith of the signification of the term science.

An honest, rigid application of this definition would reduce many ponderous volumes on science to the compass of books fitted to take their place in some vest-pocket series. Much of so-called science is nothing but theories or hypotheses to account for phenomena which everywhere confront us, many of which still remain unexplained. We do not object to these hypotheses as such; they are good in their place. They are the tools with

which scientific men do their work. All advancement in scientific knowledge has been made by using them ; but until proved to be true, they are no more science than the chisel with which the sculptor works is the statue which he brings forth from the marble. We must make a sharp distinction between science, that which is absolutely known, and hypothesis, by means of which we strive to know.

On the other hand, what is prayer ? It would not specially serve our purpose to attempt a comprehensive definition of it ; but we wish to call attention to a single element which should enter into every just definition of prayer. It must be manifest to any one who thinks at all, that men are dependent beings. In the family, in society, and in business, we all, to a greater or less extent, lean on one another, children on their parents, wives on their husbands, the ignorant and the weak on the learned and the strong, and the poor on the rich. Now, lying at the very core of prayer is the fact of our dependence on God. By asking blessings of him, we confess that dependence ; but in this confession of dependence, we not only submit our weakness to his strength, but our ignorance to his wisdom. We ask, conscious that we may make grievous mistakes in asking, so that the innermost spirit of true prayer is the submission of the petitioner to God. The cry of Christ in Gethsemane, as he prayed in agony that the cup might pass from him, "Not my will but thine be done," is the undertone of all genuine prayer ; so that God answers us truly, when, instead of giving us what we ask, he gives us rather the thing which, in his wisdom, he sees that we need.

The real difficulty in the way of God's answering prayer, according to some able scientists, is, as has already been noted, the fact that the laws of the material universe are absolutely unchangeable. This has led some theistic scientists to affirm that prayer for spiritual blessings may be answered, while prayer for physical good—for example, for rain in time of drought—is folly. But if fixity of law makes prayer for physical good absurd, it must make equally foolish prayer for spiritual blessings, since law is just as fixed in the realm of mind or spirit as in the realm of matter. The laws by which the mind is developed are just as immutable as the laws by which the oak is unfolded from the acorn ; the laws by which we think are as rigid and fixed as those which regulate the rivers in their flow or the clouds which

sweep across the sky. If, on account of the fixedness of law, it is absurd to pray for rain, it is for the same reason equally absurd to pray that the divine spirit may illuminate our minds and guide our thoughts. If, then, God may answer prayer for spiritual gifts, he may, in spite of the unchangeableness of law, answer prayer for physical blessings.

But we also suggest that the position which we combat is probably untenable, on the ground that these able scientists do not, in stating their objections to prayer, use the term law with that precision of meaning that is requisite in scientific discussion. Sometimes they personify it. It seems clothed with personality, as when they tell us that the laws of nature do this and that. They often deify it, ascribing to it attributes which the devout theist ascribes only to God. This is the method of poetry rather than of science. Every thinker knows that the term law has several distinct meanings. It will be sufficient for our purpose to note barely two. We call attention to the first simply because of its diversity from the second, so that by the contrast we may add to the vividness of the second meaning, on which we propose to comment. First, we speak of moral law. It is distinguished by oughtness. We are so made that we discern a distinction between right and wrong; we know intuitively that they are opposites. Men universally recognizing this distinction feel that they ought to do the right and shun the wrong. This ought is mightier than all other forces which impel men to action. This distinction of right from wrong, and the oughtness which presses a man, as with the superincumbent weight of a mountain, to do the right, constitute the essence of moral law. Bentham, in his utilitarian argument in reference to morals, was so troubled with this element of oughtness that he declared that the word ought "ought to be banished from the vocabulary of morals." From the inexorable necessities of his own being he could not say it in any other way.

Now, when we come to talk of the laws of the material universe, we have in mind a very different conception. No oughtness appears. We mean simply the processes of nature,—the ways in which things, so far as the observation of men has extended, come to pass. When the cold reaches a given degree of intensity, water freezes; we say that that is a material law. When the higher temperature of spring comes, the ice melts and vegetation starts; we call these processes laws. When vapor freezes,

it takes the forms of crystals; and this process we call a material law. The profoundest scientist cannot carry his analysis any further. He knows more than a clown or a child only because, by study and extended observation, he has seen more of the processes of nature, and has generalized and grouped them. In any single example, he can only see what the ignorant may see,—that a law of nature is simply the way in which a thing, in the material world or in the world of mind, is done.

Now, since in these varied laws of nature we see that certain useful ends are met, the suggestion inevitably comes that intelligence established these laws or now works out these varied and beneficent processes. Since a law of nature is nothing more than the way in which a certain thing is accomplished, it is certainly not contrary to anything which science has discovered to consider the laws of nature simply as God's methods of doing things. Such a supposition does no violence to scientific method, while it provides a suitable cause for the beneficent element in these laws. If it is asked why these processes, or laws of nature, on the supposition that they are God's ways of working, are fixed, invariable, we find a ready answer in the biblical revelation of God's nature and character. Being absolutely perfect, when, for the first time, he did anything, he did it with absolute perfection. When a thing is perfect, there can be no change for the better, since nothing can be any more than perfect; but God cannot change, in these processes of nature, to that which would be in any sense imperfect, since that would be a contradiction of his own absolute perfection. So we find in the character of God, as presented to us in the Bible, the sufficient reason for the immutability of natural laws, when we regard them as simply his methods of acting. So when David sang, "The Lord also thundered in the heavens, and the highest gave his voice," he may not even in his imaginative song have uttered anything opposed to the strictest science; it may be that in such diction, poetry and science met together and kissed each other. But if these processes of nature may, without the slightest conflict with science, be considered simply the actings of God immanent in his own creation, it is not impossible that, working by these unchangeable processes, he may answer the prayers of his children.

And it will not be difficult for us to discover by analogy how, in perfect harmony with the fact of the immutability of

natural laws, God may do this. The perfect confidence of men in the fixity of natural laws underlies all their acts. Without such confidence they could not construct or work the simplest machinery. They would not dare to sail lake or ocean, lest by a change of natural laws their vessel should suddenly sink rather than float. But because they know these laws to be immutable, they use them with confidence in all their manifold activities. Now, from analogy, we are able to see how the immutability of natural laws, instead of being an obstacle standing in the way of God's answering prayer, may become rather the very means by which he answers every prayer of faith. Men, because these natural laws are unchangeable, are able by the adjustment to each other of even a very few of them to secure the most wonderful results. The adjustment to each other of a few immutable laws gives us the steam-engine, which moves most of the machinery of the civilized nations. The adjustment of a few immutable laws drives our great merchant ships around the globe. The bird which darts upward into the air and onward through it with such great velocity, instinctively adjusts a few unchangeable laws to bring about this surprising result. If men, with their limited knowledge, and the birds of the air by instinct, can use unchangeable laws to reach such marvelous and varied results, can not God, who established these laws, so adjust them to each other as to answer every true prayer breathed into his ear? Immutability of law, then, does not make prayer even for physical blessings a folly, but rather suggests to us how God, because of this very immutability, may answer every true petition.

Then we are never to forget that at the best we know but little. La Place is reported to have said, just before he died, "What we do not know is enormous." We have discovered, by centuries of toil, a few natural laws. As the circle of our knowledge has widened, we have become aware of a still greater circle just beyond that no human mind has ever explored. And in the future, as our knowledge extends, we shall ever grow more and more keenly alive to the infinite reaches of being and of law which we do not know. What we know of the laws of the material universe compared with what we do not know, is like the handful of sand in the hour-glass compared with the vast Sahara. If man, with his very limited knowledge of unchangeable laws, can by their adjustment to each other achieve so much,

who shall limit in his achievements Him who understands all laws, and who, by the simple act of his will, can adjust these myriads of laws to each other so as to satisfy the cry of every one of his creatures?

Moreover, those who have arrayed science and prayer against each other have sometimes complacently sneered at those who still believe that God answers prayer as being honest enough, but pitifully unscientific. Now, such men ought not to complain, if we demand in them what they demand in others. No theory designed to account for any class of phenomena is worth anything unless it takes into consideration all the known facts and makes suitable provision for them. Those who contend that, on the basis of the immutability of natural laws, it is folly to pray, have never in their theory made full provision for the entire contents of the fact of prayer. If one thing in reference to man has been established beyond every other, it is the fact that he has distinctively a religious nature. Wherever found, be he savage or civilized, he is religious. He universally has his places of worship, rude or artistic; he has his shrines and altars, and offers to his god or gods sacrifices bloody or unbloody. Heathen, Mohammedan, and Christian alike pray. Even men who declare themselves atheists will sometimes pray, when they get into a pinch; and in their highest and best moods will utter words of praise to Him whom they declare not to exist. Now, a fact so universal as prayer must be in some way accounted for. Does it not carry the evidence in itself that there is an answer to it? We find it to be a general law of our being that satisfaction is provided for every natural and right desire. We hunger,—without us are manifold harvests and barns bursting with plenty; we thirst,—without us are lakes, bubbling fountains and purling brooks; we long for the beautiful,—without us in myriads of objects is beauty more subtle and delicate than was ever expressed by the brush of the painter or the pen of the poet; we crave the sublime,—and cataract, and mountain, and heaving ocean, and the awful storm, answer the inward desire. As, in these cases, the hunger, the thirst, the longing, and the craving are evidences within us of the satisfaction without us, so prayer, the deep longing or craving of man's religious nature, carries with it the decisive evidence that there is without an answer which will meet and satisfy it. If this be not so, then for our physical and intellectual cravings answers beautiful and complete have been provided,

while the cravings of our higher religious nature have been left uncared for and unsatisfied. This a school-boy could not fail to stamp as the rankest absurdity. Prayer is either answered, or else those desires which impel man to come into communion with God are, of all the desires of his being, alone a mockery. Is any one credulous enough to believe that?

Any sound theory of prayer must also take into account another fact, namely, that of testimony. Men affirm that God has heard their prayers. From the number of witnesses let us exclude all those who might reasonably be accused of fanaticism; yet we have failed to see why the testimony of a fanatical Christian is not just as trustworthy as that of a fanatical skeptic. We will exclude, too, all witnesses who may be reasonably suspected of having had collusion with each other. Then we will sift the testimony of the clear-headed, unbiased witnesses, striking out every statement which may, with the slightest show of reason, be considered as an illusion of honest but mistaken men. Even then, the testimony gathered from the witnesses of all time that would remain, all bearing on this one point, would, if printed in books, make a vast library. Can any just theory in reference to prayer omit a fact of such magnitude? Would it be scientific to ignore all this testimony of the purest and best men that ever lived? If their testimony is declared fanatical, would that not prove too much, if mere assertion ever proves anything? Would it not show that the fanaticism of the ages has contained within itself the godliness, the purity, the virtue of the ages? No, there is no way in which we can scientifically thrust such testimony out of sight. It stands as solid as granite, as clear as crystal, and he who would be scientific in handling the fact of prayer must take it up into his theory and account for it.

If it should be said that prayer and its supposed answer is simply a happy coincidence, we might grant that in one, or two, or three cases it may be, and do no despite to science. But take fifty cases, or five hundred, or ten thousand, and declare in every case that we have only a lucky coincidence, and such a number of coincidences would tax our credulity far more than to admit that God in reality answered the prayers: so large a number of coincidences would be a thousand-fold more mysterious than the fact that these men cried unto the Lord, and that he, in mercy and love, heard their cries and satisfied their wants. By no device can we, with a strict scientific spirit and method,

brush aside the vast mass of testimony that God has answered prayer.

Our argument in brief, then, is this: from any proper definition of science and prayer, we cannot discover anything within them that brings them into conflict. Those who rule out prayer for physical blessings on the ground of the immutability of natural laws must, if consistent, rule out prayer for spiritual blessings also, since law is as fixed in the realm of spirit as in the realm of matter. Confusion often results from a lack of precision in the use of the term law—a physical law being, to our observation, only a process in the material world; but as we see that in the process beneficent ends are reached, that fact suggests that the process may be simply God's method of acting. By these very processes, therefore, God may answer prayer. As men, by adjusting to each other the few immutable laws of the material world which they have laboriously learned, reach all the varied and marvelous results which we see produced by mechanical contrivances, so God, who works in and through all the laws of his universe, by their adjustment, without in the slightest degree infringing them, may answer every prayer of his people. Any truly scientific theory of prayer must account for the fact of prayer, and deal dispassionately with the mass of testimony given, down through all the ages, that God has, in almost innumerable instances, answered prayer.

After a calm, dispassionate examination of all that has been written by materialistic scientists about the impotence and folly of prayer, we may, without the slightest danger of being unscientific, still believe and obey Him who, speaking with unerring wisdom, said, "Ask, and it shall be given you."

GALUSHA ANDERSON.

MR. WAKEMAN.

THEOLOGY is the past tense; Science is king. Such is the conviction of thousands who lead or hope to lead the world. The reason is, that science has the only verifiable, and therefore the only reliable test of what is true, or good, or beautiful. The practical life of man, the arts, commerce, medicine, law, and even philosophy and ethics, have become firmly established only as they have been founded anew upon scientific methods and results.

Will religion be the exception? Or will science banish theology from that, as it did astrology from astronomy? Will the ultimate, the religious, conceptions of mankind be annexed to the scientific domain? If so, this new solution of the world will evidently supplant the ancient one and become the creed of the intelligent of the race, the basis of its higher integration. The rapid progress of science toward this result is the most astonishing phase of human history. This new solution of the universe—this idea of law, which is pushing will from the throne—dates not further back than three hundred years (A. D. 1600), when the Copernican astronomy, by the substitution of the heliocentric for the geocentric theory, presented man with a new heaven and a new earth, a new cosmogony, which necessitates a scientific religion, and will leave none other possible.

It may be replied that science cannot for ages reach the masses of the race who are still Fetichists, nor even the majority in civilized countries who are little better. Granted; but knowledge is power. Those who have this power will control the earth, although they may not have the numbers to inherit it. In the rational and spiritual world there is not equality. The law of evolution assigns rank according to courage and capacity. When the vanguard waits for the rear all progress will stop. The rear will never move until drawn forward by the advance. The blind will never see without the light. The highest duty is to tell the highest truth.

What, then, is the verdict of science upon prayer? Prayer is the essence of religion; is, indeed, practical religion under theology. But will the coming scientific, intelligent man pray at all? If not, from whence can he derive the reliance, comfort, and discipline that prayer has afforded to the past generations of men? If prayer is not a means of grace under the new and higher integration, what will take its place?

Evidently prayer is useless unless prayer is answered. Does not the scientific proof that prayer is answered wholly fail?

At the very first step, the fundamental laws of modern science seem to render prayer-answer *a priori* inconceivable. Those laws are: the indestructibility of matter, the correlation and equivalence of forces, gravitation, and the law of evolution. This last law is now recognized as the backbone of the organic, the social, the mental, the moral, and the religious sciences. The old rudimentary beliefs about the uniformity of nature, and

that like causes and conditions produced like effects, have been summed up and verified invincibly in these laws. They are the greatest acquisition of the human race, and together form the new solution of the world. All science is merely their repetition or extension; its literature is their illustration. They are not only drawn from the facts and events of the world inductively, but Mr. Spencer shows ("First Principles," chaps. 4-9) that, at bottom, they rest upon the law of correlation, the contrary of which is from the very constitution of our minds inconceivable. Thus, the indestructibility of matter and the persistence of force are not only proved by every observation and experiment, but upon ultimate analysis are found to be the condition of thought itself. All notions inconsistent with these laws are called by scientists *pseudo*-conceptions. They have been inherited in vast masses from the unscientific period prior to 1600, when accurate knowledge beyond simple mathematics was practically impossible.

Is prayer-answer, then, one of those *pseudo*-ideas? The answer is affirmative if prayer involves a break or variation of those laws.

The burden of reconciling prayer with those laws rests upon its advocates. Can it be done? Science seems to answer decisively, No! In the olden times, nothing was more easy than a belief in prayer-answer and miracles, for nothing was more "natural" under the will, or God, solution of the world. "Sacred" literatures are full of these events. The old world was plastic material for the working out of divine and human ends. In its will-science, matter and the laws and order of nature were violated, varied, adjusted, or changed for purposes personal or religious. For instance: water was made wine; or five fishes became a hundred; a storm was broken up; iron floated; or a sacrifice was set on fire in answer to Elijah's prayer. Every instance, and they might be collected by thousands, contains the same illusion; that is, that the matter, or forces, of the world may be changed or increased in violation of, or beyond, the correlate order. In that supposition only consists the value of prayer or miracle. But for this notion of power, over or beyond nature, neither would be sought or used. From the slightest glance at the history of prayer-answer and miracle it is plain, therefore, that both were valued only as they were directly in the teeth of the order of nature, and of what are now known to be

the fundamental laws of science. It follows that this venerable practice will cease in direct proportion as those laws become known and people come to rely on them, instead of on petitions to alter them.

But the *pseudo*-conceptions of this character, and their fundamental illusions, are, as we have intimated, ancient, venerable, and hereditary. Immense capital—material, mental, social, and spiritual—is invested in them. The law of evolution, therefore, leads us to expect that instead of any sudden change there will necessarily arise an immense expenditure of ingenuity to make these *pseudo*-notions appear credible, and a very considerable amount of indignation will be visited upon those who may oppose them.

Let us, then, next examine the most common mode of sustaining this belief. It is simply a part of theology, and is itself unscientific in nature and method. It assumes a God who is anthropomorphic, and yet perfect, infinite, eternal, unchangeable, omniscient, with a will, capacities, and feelings similar to, and yet infinitely beyond those of man. The assumption is that this God, in some way and at some time “in the beginning,” created the world out of nothing, or out of his own potency, and has since governed it in a fixed order, according to the laws of his own enactment, now known to us, however, as the laws of correlation above described. These laws, therefore, under the theological interpretation, are always within the control of this supreme will, and he varies, changes, adjusts, or in some way uses them so as to effect answers to prayer.

But this hypothesis of a personal or anthropomorphic God is invoked in vain. It has no weight with pure Theists, Agnostics, Pantheists, or Atheists. All these classes of thinkers unite in showing that the anthropomorphic conception of God is a false one, and without the slightest scientific warrant; that it is a dogma of theology which cannot be conceived, much less understood, but which must be “received by faith” as a “mystery,” if it be received at all. When mysteries of this kind (as, for instance, the dogma of transubstantiation) meet the law of correlation, they pass at once beyond the domain of science into that Limbo of Vanity, or of poetry and fancy, known in science as Fable and Myth.

But to those who still retain, or imagine that they retain, a belief in an anthropomorphic Deity, will this hypothesis of a

personal God remove or only increase the difficulty? Plainly the latter. It is as impossible to reconcile prayer-answer or miracle with God's necessary and admitted attributes, which are, his omnipotence, omniscience, and perfection, as it is to reconcile them with the Scientist's laws of Nature. Nor, may we add, does such prayer-answer or miracle remain consistent with any reasonable veneration for a Deity. For if the laws of nature be but the order of continuous manifestations of his power, they are invariable, because they must be perfect, for they are the action of a Perfect Being who omnisciently knew all things for all time, and had infinite power to execute all that he knew or wished. Such a Being is, therefore, commonly and properly described as unchangeable, and "without a shadow of turning." To suppose such a Being to alter the order of the world would be to admit that it was not perfectly conceived and ordered in the first place, and that its Maker failed for want of knowledge or power to make it complete. A perfect and invariable God cannot also be imperfect and variable. Such a Being is a bundle of absurd contradictions.

But let us next suppose that prayer was foreknown and fore-ordained by this Supreme Being, as a thing to happen as a part of his government by which man would procure a benefit that God had fore-ordained thereupon to grant. Then the prayer would be useless; for, the event would happen as a part of the perfect world-order without prayer, or, if prayer were decreed to be inseparably connected with the event, then it would be simply a part of it, a superfluous concomitant of the event and useless, since the event would happen without it. The maker of the prayer would be only an automaton worked for nothing. If this be the plan of the world, it is plain that God has fore-ordained to grant benefits to intelligent people without this needless addition, which they have practically dropped. He has wisely fore-ordained that people should drop it as they become enlightened.

But suppose that God has fore-ordained some facts to be born as twins. For he may have arranged "from all eternity," so that a certain event cannot happen without a prayer preceding, which prayer depends upon the volition of some man. Plainly this would be conditioning the order of events, and the order of a perfect world, upon the volition of an imperfect being. This would contradict God's perfection, omniscience, and goodness. The idea that a Perfect Being could let his world be run by im-

perfect and ignorant creatures through their prayers would be simply absurd. Leaving a child in charge of a steam-engine would be nothing to it.

But if the prayer did not thus change or determine the order of its twin event, it would evidently be useless. If it does change that order, God, "from all eternity," knew it, or he did not. If he did not know it, he was not omniscient and perfect. If he did know it, he must have ordered it, for all things must have been fore-ordained by himself in order to be knowable by him. But if he knew and ordained the result, he must be morally responsible for it; and if he is also perfect, the result ordained by him must be perfect. But it could be perfect in one order only; for there cannot be two perfect orders. Therefore, the actual order must have been eternally perfect and eternally ordained, and the prayer for any change must be useless and absurd. Prayer-answer could only lead to imperfections and the consequent inference of an imperfect God.

But, it is said, may not God, in some way, adjust his fixed laws so as to effect answers to prayer much as human beings do, or are supposed to do? The answer is, that scientific laws are unvariable, and therefore always unadjustable. They cannot be adjusted by either God or man. They can only be obeyed or followed. As Bacon taught, man conquers Nature only by obedience. Man may adjust matter, or phenomena, or himself, and events, so that these laws may come in play, as is the case in all scientific experiments. But to speak of man adjusting the laws of nature is a total misapprehension of them and of man's relation to them. Man modifies phenomena by bringing them under laws, but he never varies, or changes, or bends, or adjusts laws in any way whatsoever. Nor can God do it without violating his own attributes and committing logical suicide; for the law is the order which is the condition of his attributes and existence. But if any such thing could be done consistently with God's attributes, would it be less a violation of the law of correlation? Certainly not. If prayer be of any value, it must cause God to vary the order of his correlates in some degree, or direction, or time. It matters not whether this variation from the fixed law is made at the time of the prayer, or years before or after. Whether at once, or gradually, it is a variation of the order which otherwise would have occurred if the prayer had not been offered. Laws, therefore, cannot be adjusted; but man and his affairs may be

adjusted to them by his will and efforts. Thus he is said, by labor and prevision, to modify phenomena to his use, and to avoid the crushing weight of fatalism which the inexorable laws of nature would otherwise bring upon him. But the very possibility on the part of man of this power of modifying phenomena, and so of making his life tolerable, or glorious, depends upon the invariability of unadjustable laws. Let it be supposed for a moment that these laws could be changed or adjusted by prayer, or in any other way, then science and the certainty of life would be gone, and modern civilization would disappear.

But next, it may be said, why may not God, in a similar way to man, adjust and modify phenomena under these fixed laws, and so effect answers to prayer? If man can do this somewhat and beneficially for himself, why cannot God do it for him infinitely more? The answer is, that God must be just as perfect, omniscient, and omnipotent as to phenomena as he is as to their laws. As such, he has settled the phenomena and their order, including man's will and works, as well as all possible laws, perfectly and forever, from all eternity. Man is weak, imperfect, and ignorant, and therefore he has to change and adjust himself according to his own will and imperfection. Man is thus subject to the "struggle for existence," and therefore has developed a will, and uses it to provide for his wants. But God is freed from all strife; will and law are one with him, and cannot be otherwise. Man is a contestant; God is conceivable only and always as perfect. He exists only in perfect order. To suppose that he does not, is to involve the absurdities referred to above as to God's attributes and law.

Lastly, this anthropomorphic notion of God which we are considering makes him the reverse of worshipful. He becomes a limited, imperfect *quasi* human agent, morally responsible for the evils that exist and for all of the sufferings of his creatures. These moral consequences are too horrible to be more than referred to, nor is more than a reference necessary to any intelligent person. All personal Theism, therefore, in attempting to adjust or to escape the order of correlation falls into intellectual contradictions, and ends in making God a moral monster. Such attempts to make prayer-answers credible are hopeless.

But it is said, then let the appeal be to facts: if the case fails *a priori*, it may be proved *a posteriori*. Can it be possible that

the almost numberless facts from sacred and profane records, detailing, even down to our own day, what have appeared to the relators to be answers to prayer, can be wholly mistaken or fraudulent?

To this the answer may seem rude or cruel; but to science, "facts" of this kind, related after the events, even by the observers, are only second-hand facts, and, when repeated by others, have no weight whatever. They simply are not facts to any scientific or intelligent person. Among the superstitious, or those who wish to believe, the eye "brings more than it sees." Such "facts" are illusions, common enough now in uncivilized countries and among the more ignorant Roman Catholic people. They merely prove the credulity of the people who assert them, and their incapacity to make and to cross-examine their observations. Anything desired may be proved to or by such individuals.

But, besides this, the ordinary conditions and "facts" of prayer are commonly not of a verifiable nature, as Professor Tyndall has fully pointed out in his well-known letter on prayer-gauge. No facts on this subject, unscrutinized by science, are of the slightest scientific value, and no such scrutiny has ever been applied. No advocate of prayer dares to imitate Elijah by an appeal to facts that could be known to be real and scientific. And this one fact outweighs all alleged "prayer-facts," and is conclusive evidence that the confidence of prayer advocates is traditional and sentimental and not real.

The truth of this view was well illustrated in 1872, when Professor Tyndall and Sir Henry Thompson proposed, in the fairest and most candid manner, a practical trial, or prayer-gauge, referred to in the above paragraph, so that something might be done to verify this prayer-power, if it have any existence. What was the result? Instead of coöperation, these distinguished scientists were vociferously accused, in the Professor's words, of "insolence, outrage, profanity, and blasphemy"; to which he very appropriately replies: "They obviously lack the sobriety of mind necessary to give accuracy to their statements, or to render their charges worthy of serious refutation." He had simply asked for one test under conditions that would enable prayer to be established. "A single experiment," he said, "is frequently devised by which a theory must stand or fall"; as, for instance, the lesser velocity of light

through liquids, shown at once, was a crucial test against Newton's emission theory of light.

But the crucial test which advocates of prayer in England would not furnish to the scientists was within ten years furnished to the world on the grandest scale (grander than that of Elijah) in America. In 1881, the prayers of fifty millions of people, indeed we may say of the prayer-makers of almost the whole world, went up for months, day and night, but they could not cause the change of a single pus-cell in the languishing form of our dying President. "It was not the Divine will," we hear? Yes; but if the only prayer ever answered is "Thy will be done," why is it not a saving of time and dignity to let that will be done without the useless prayer?

Next, we are told that prayer has been a very general belief in all places and times, and among all religions. Must not the belief and the supposed need of it have some response or counterpart of fact in the order of nature? How else came it ever to exist? Science answers, No. The belief in a thing, and above all our feeling of a want of it, does not affect the external order of nature, nor prove in the slightest what it is or will be. Science has, on the contrary, reversed every important early belief of mankind, beginning with astronomy and ending with the scientific theory of the *ego* or selfhood. The presumption is, that all ancient beliefs are based upon imagination and illusions of the senses, and upon that ignorance of the meaning of facts which universally prevailed during the childhood of the race. It is the very business of science to reverse these beliefs. That the general want of a thing proves its existence is, if possible, still more absurd. The want is simply a counterpart of the belief, and when that is removed the want and practice die with it. Prayer is not only not wanted, but is disagreeable to those who have outgrown it. The existence of fairies, witches, angels, devils, demons, and ghosts can be readily proved by this method. Not solid facts, but illusions and delusions, are their creators.

The custom of prayer is simply evidence of man's weakness and needs, and of the childish views he once entertained of the world and of God. As far as the needs remain, science will supply them under intelligent human effort. Thus, as the light of law advances, the illusions of the old spiritual world, and prayer among them, will vanish like ghosts at dawn. They will be simply outgrown.

In this view, this prayer discussion is of great practical importance. This delusion, if it be one, needs to be removed from the popular mind with all convenient speed. For the sure foundation of practical life is the general belief in the invariable order of nature. If this order can be varied, adjusted, or broken by God, or by the prayer of a man, then science and civilization are all at sea. We are remanded back to the age and the methods of the rain-maker and the sorcerer. The foundation of the future welfare of our race rests on the public conviction of the impregnable immutability of laws, and of the almost infinite modifiability of phenomena under them through human will and effort. There is no reliable basis for individual character or for society if these scientific convictions are destroyed or weakened in the popular mind.

To be deprived of pleasant illusions, or to deprive others of them, may be painful, but all scientists should sustain the highest conceptions of nature, of law, and of God, knowing that they bring their compensations. Says Goethe :

Painful truth! Yet I prefer her to pleasant error,
For truth will heal the pain she may oft inflict.

What, then, are the remedies of truth for prayer? That they will all become apparent at once is not probable. We must outgrow the use of prayer as we do other limitations of childhood—gradually, and by the aid of truer conceptions, ideals, and habits.

The higher integration will present its compensations. Space permits only an intimation of these. Confidence in a firm world of law, modifiable practically without limit as to phenomena and events, by the will and efforts of man for the benefit of his race, becomes the true basis of nobility of character. The infinite, the cosmos, and man become the sources of feelings, thoughts, purposes, hopes, and duties which are found to be inspiring, consoling, practical, beneficent, and religious in the highest degree, and which open up a new world. Habitual physical rest, and times devoted to the cultivation of our highest ideals and feelings, become a source of sweetness and light more sure than prayer or sacrifice. To these results, the lives of Spinoza, Goethe, Hume, Kant, Comte, Mill, Carlyle, Emerson, Harriet Martineau, George Eliot, and thousands who have discontinued the habit of prayer, bear abundant and practical witness.

Mother-wit is the cure for false theology, says Emerson, and it is sure! The bottom of the world, and of human effort and hope, is *infinite*. It is because we grow to newer and truer ideals, purposes, and hopes that the older, like the leaves, fade and fall. Those who do not see the new will proceed as of old, for no desire will disturb their illusions. Thus the law of evolution happily protects them from the light which might injure or blind. But those who see must fearlessly advance. As Professor Ernst Haeckel enjoins, *impavidi progrediamur!*

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